neurotransmitter identity of noradrenergic neurons," and "Shh is a signaling molecule which has been shown to be critical for determining the development of both the dopaminergic and serotonergic neurons" (page 18, second paragraph). Applicants explicitly state that methods employing these cell fate-inducing genes can be used "to induce the differentiation of the specific cell types required for transplant therapy" (page 18, second paragraph).

Applicants respectfully submit that the claim term "cell fate-inducing genes" is not indefinite. Accordingly, this rejection should be withdrawn.

CONCLUSION

Applicants submit that the claims are in condition for allowance, and such action is requested. Enclosed is a petition to extend the period for replying for three months, to and including April 4, 2002. If there are any charges or any credits, please apply them to Deposit Account No. 03-2095.

Applicant notes that the forms PTO-1449 submitted with the Information Disclosure Statements filed January 14, 2002, and January 30, 2002, have not been initialed and returned and hereby requests that they be initialed and returned with the next action.

Respectfully submitted,

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Claims as Pending

1. A method of treating a human patient suffering from a neurodegenerative disease, said method comprising:

engrafting into said patient a population of recombinant cells comprising one or more cell fate-inducing genes that permit said cells to form neurons in said patient.

2. The method of claim 1, wherein said cell-fate inducing genes are one or more of Nurr-1, PTX3, Phox 2a, AP2, and Shh.

3. The method of claim 1, wherein said cells are made by the steps of:

a) obtaining one or more stem cells,

b) transfecting said one or more stem cells with said one or more cell fate inducing genes,

c) selecting one or more transfectants from step b), and

d) expanding said one or more selected transfectants from step c) to form said population of recombinant cells.

4. The method of claim 3, wherein step d) comprises inducing cell division using a growth factor.

5. The method of claim 4, wherein said growth factor is leukemia inhibitory factor.

6. The method of claim 1, wherein said cells are made by the steps of:

a) obtaining one or more stem cells,

b) expanding said one or more stem cells, and

c) transfecting multiple cells in the expanded cells from step b) with said one or

more cell fate inducing genes to form said population of recombinant cells.

7. The method of claim 6, wherein step b) comprises inducing cell division using a growth factor.

8. The method of claim 7, wherein said growth factor is leukemia inhibitory factor.

9. The method of claim 1, wherein said one or more cell fate inducing genes permit said cells to form dopaminergic neurons.

10. The method of claim 1, wherein said recombinant cells are a homogenous cell population of a specific neuronal cell-type.

11. The method of claim 10, wherein said one or more cell fate inducing genes permit said cells to form dopaminergic neurons.